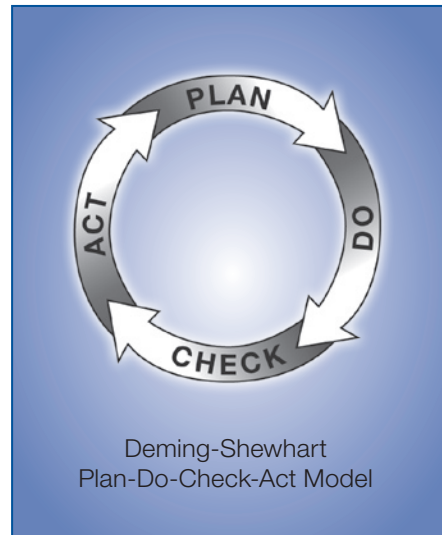


Introduction

An environmental management system (EMS) is a voluntary system for identifying, controlling, and monitoring facility activities that could impact the environment. It is a system that encourages facilities to make environmental issues an everyday part of business. It helps organizations take a proactive rather than reactive approach to environmental programs and address impacts that may not be regulated, such as energy use or use of resources. An EMS provides a structure for overseeing programs. It does not, however, tell organizations what to manage. Organizations make the decisions on what to manage based on business needs, resources, and identification of significant activities. The idea is to integrate all environmental responsibilities into the daily decision making and overall management of operations at each facility to increase effectiveness and efficiency. Use of an EMS is completely voluntary; there are no compliance regulations in Indiana that require the implementation of an EMS. However, the Indiana Department of Environmental Management coordinates two voluntary recognition programs in which participants implement an EMS to qualify.



■ Environmental Stewardship Program

Indiana entities who achieve environmental objectives through creating and implementing an EMS may qualify to participate in the Environmental Stewardship Program (ESP). ESP is a voluntary, performance based leadership program designed to recognize and reward Indiana regulated entities for going above and beyond current environmental regulations. In return for their exemplary environmental performance, these establishments will receive program incentives including regulatory flexibility, public recognition, and networking opportunities. For more information, please refer to IDEM's Web site at www.idem.IN.gov/4132.htm or call ESP staff at (800) 988-7901 or (317) 232-8172.

■ Indiana CLEAN Community Challenge

The Indiana Comprehensive Local Environmental Action Network (CLEAN) Community Challenge is a voluntary recognition program for local Indiana government. CLEAN helps communities take steps to plan, develop, and implement a quality of life plan. This plan includes gathering input and support from the community and local businesses. For more information, please refer to IDEM's Web site at www.idem.IN.gov/4135.htm or call CLEAN Community Challenge staff at (800) 988-7901 or (317) 232-8172.

Environmental Management System Concepts and Standards

The environmental management system concept is based on the Deming-Shewhart Plan-Do-Check-Act model and is designed to improve environmental performance beyond regulatory compliance. An EMS creates a more level playing ground in environmental control in the world market, providing a competitive advantage and giving credibility to environmental programs. An EMS is practical and applicable even to the smallest business or organization that wishes to improve environmental performance. Voluntary EMS implementation by industry and organizations is increasing in Indiana and throughout the world.

Each EMS is tailored to the organization implementing it, but there are standards or formats that can be followed when developing your system. The business community developed standards for environmental management to provide consistency and credibility for the use of an EMS. All EMS standards have these basic components:

- Management commitment;
- Environmental policy;
- Aspects, impacts, goals and objectives – PLAN;
- Implementation and operation – DO;
- Measure – CHECK;
- Checking and corrective action – ACT;
- Management review; and
- Continual improvement.

The standard provides the basic framework, but documents and policies are tailored to each facility's needs. Many facilities may already have programs and documents that satisfy most of these common elements. Such facilities will only need to formalize procedures and documents so programs can be managed in a logical and accessible manner.

The best known and most widely used EMS standard in the United States and throughout the world is ISO 14001. The International Organization for Standardization (ISO), consisting of representatives from industry, government, non-governmental organizations, and other entities, first published EMS standards in November 1996. An updated EMS standard was released in 2004, called ISO 14001: 2004(E). ISO 14001 is a standard that is harmonizing environmental management practices and requirements around the globe. The ISO 14001 standard outlines elements that must be followed if a facility wishes to be in conformance with this internationally recognized standard.

The elements of the ISO 14001 standard are as follows:

- **Environmental Policy**
- **Planning**
 - Environmental aspects
 - Legal and other requirements
 - Objectives, targets and programs
- **Implementation and Operation**
 - Resources, roles, responsibility and authority
 - Training awareness and competence
 - Communication
 - Documentation
 - Document control
 - Operational control
 - Emergency preparedness and response
- **Checking**
 - Monitoring and measurement
 - Evaluation of compliance
 - Nonconformity, corrective action and preventive action
 - Control of records
 - Environmental management system internal audit
- **Management Review**

Implementation of an EMS does not substitute for compliance with regulations, but can improve compliance records, reduce environmental risk to employees and the surrounding community, and address issues that are not regulated. In short, environmental management is a continual improvement process propelled by the desire to comply with regulations and operate cost-effectively. Fully developing and integrating an EMS into day-to-day management processes and operations is a more efficient way of doing business.

What are the Benefits of an EMS?

■ Reduced Costs

Facilities that have implemented an EMS report improved operating efficiency through a focus on important issues, development of standard procedures, and increased employee training. Most companies have reported reduced energy and waste disposal costs through the systematic process of identifying potential process improvements. Some facilities have been given lower liability insurance rates and lower loan rates after developing an EMS because they have reduced their legal liability and likelihood of catastrophic occurrences.

■ **Competitive Advantage**

A number of larger companies in the United States, especially in the automotive and electronic fields, have developed EMSs and are now suggesting that their suppliers implement an EMS. Some markets, like Japan and the European Economic Union, require organizations to have EMSs to conduct business. In other words, consumers and manufacturers are giving preference to products from environmentally responsible suppliers.

■ **Improved Image**

An EMS can improve business image and give credibility to environmental programs. The local community, environmental regulators, and environmental groups see EMS development as an indication of an organization's willingness to be a responsible citizen and go beyond compliance. Accordingly, the surrounding community and environmental regulators will recognize your efforts.

■ **Enhanced Regulatory Compliance**

An EMS can help improve regulatory compliance and reduce liability from noncompliance. The adoption of procedures, work instructions, and additional training will add consistency and stability to your environmental programs. It will lead to improved control over your potential environmental impacts and help you anticipate and control upsets.

■ **Improved Environmental Performance**

Many of your goals will likely involve energy and waste reduction and pollution prevention. Achieving these goals will ultimately lead to improved performance and a cleaner environment. Plus, an EMS can help you measure the social, economic, and environmental benefits of your environmental management programs.

For More Information

Clean Manufacturing and ISO 14001 Conformance Audits	<p>Indiana Clean Manufacturing Technology Institute (CMTI) <i>(CMTI provides ISO 14001 conformance audits.)</i> (765) 463-4749 https://engineering.purdue.edu/CMTI/</p>
Confidential Assistance and Environmental Management System Resources	<p>Compliance and Technical Assistance Program (800) 988-7901 (toll free in Indiana) or (317) 232-8172 www.idem.IN.gov/5120.htm</p>
Environmental Management System Publications	<p><i>Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations</i>, 2001 (second edition) www.epa.gov/ems/resources/guides.htm</p> <p><i>Environmental Management Systems – Getting Started</i> (published by the North Carolina Division of Pollution Prevention and Environmental Assistance) www.p2pays.org/iso/getstart.asp</p> <p><i>Integrated Environmental Management Systems Implementation Guide</i> www.epa.gov/ems/resources/guides.htm</p> <p><i>ISO 14001 Guidance Manual</i> (published by the National Center for Environmental Decision-Making Research) http://sunsite.utk.edu/ncedr/pdf/ISO14001.pdf</p>

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